UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,026	02/26/2002	Paul S. Odom	002-US-009	2690

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EXAMINER
LY, ANH

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/086,026	ODOM ET AL.
	Examiner	Art Unit	
	Anh Ly	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2004*.

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,16-26 and 29-48* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13, 16-26 and 29-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. *03/09/05* .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is response to Applicants' Amendment filed on 11/12/2004.

2.   Claims 14-15 and 27-28 are cancelled.

3.   Claims 1-13, 16-26 and 29-48 are pending in this application.

Claim Objections

4.   Claims 12 and 25 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7.   Claims 1-11, 13, 16-24, 26 and 29-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No.: US 2004/0024583 A1 of Freeman in view of US Patent No. 6,678,694 issued to Zimmermann et al. (hereinafter Zimmermann).

With respect to claim 1, Freeman teaches the claimed features determining a segment-level actual usage value for one or more word combinations, wherein a word combination includes two or more words (statistical analysis of a list of word combinations having at least two words: sections 0019, 0048 and 0060-0072);

Computing a segment-level expected usage value for each of the one or more word combinations (computing the value of the word combinations in a data corpus: section 0072) and

designating a word combination if the segment-level actual usage value of the word combination is substantially greater than the segment-level expected usage value of the word combination (the comparison of the values of the data corpus to locate and to produce a list of word combination: sections 0121-0123).

Freeman teaches statistical techniques and/or methods for a list of all possible

relationships for word combinations from a list of words and word groups having at least

two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating

the value of those for producing a list of words in a context of the word (sections 0072

and 0121-0123) and locating the word combination based on the comparison between

the first and the second value (section 0121). Freeman does not clearly teach the topic

of the word list.

However, Zimmermann teaches analysis and categorization of the words or word

combinations of the topics as well as the number of occurrences of the word pairs (col.

3, lines 45-58 and col. 8, lines 17-61; also see fig. 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Freeman with the

teachings of Zimmermann, wherein the subjects of the documents in the system

provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the

use of topics of word combination, in the same conventional manner as described by

Zimmerman (col. 8, lines 17-61). The motivation being to provide an efficient method for

statistical analysis of a collection of topics that are related to both data corpus and the

domain interest of the data analysis.

With respect to claims 2-5, Freeman teaches a method for identifying the topics

as discussed in claim 1. Also Freeman teaches subject of the corpus as a header of the

text string of corpus (sections 0048-0049).

Freeman teaches statistical techniques and/or methods for a list of all possible relationships for word combinations from a list of words and word groups having at least two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating the value of those for producing a list of words in a context of the word (sections 0072 and 0121-0123) and locating the word combination based on the comparison between the first and the second value (section 0121). Freeman does not clearly teach wherein each of the plurality of segments comprises a portion of a document, wherein the portion of a document comprises a paragraph, wherein the portion of a document comprises a heading and wherein the portion of a document comprises the entire document.

However, Zimmermann teaches document, and documents and paragraph and document titles (see abstract, col. 1, lines 25-35, col. 4, lines 58-67 and col. 5, lines 1-14; col. 6, lines 34-43 and col. 7, lines 25-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Freeman with the teachings of Zimmermann, wherein the subjects of the documents in the system provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the use of topics of word combination, in the same conventional manner as described by Zimmerman (col. 8, lines 17-61). The motivation being to provide a efficient method for statistical analysis of a collection of topics that are related to both data corpus and the domain interest of the data analysis.

With respect to claim 6, Freeman teaches wherein each of the one or more word

combinations comprise two or more substantially contiguous words (two words or pair elements: section 0048).

With respect to claim 7, Freeman teaches wherein two words are substantially contiguous if they are separated only by zero or more words selected from a predetermined list of words (the list of topic word: sections 0060-0063).

With respect to claim 8, Freeman teaches wherein the predetermined list of words comprises stop words (sections 0060-0063).

With respect to claim 9, Freeman wherein at least one word in each of the one or more word combinations is selected from a predetermined list of words (the list of topic word: sections 0060-0063).

With respect to claim 10, Freeman teaches wherein the predetermined list of words comprise a list of domain specific words (the list of topic word: sections 0060-0063).

With respect to claim 11, Freeman teaches determining a segment-level actual usage value for a word combination comprises determining the number of segments in the data corpus the word combination is in (see table 1-2: a list of segments in a from a data corpus or document including all of word combinations: section 0123 and also see sections 0100 and 0072).

With respect to claim 13, Freeman teaches a method for identifying the topics as discussed in claim 1.

Freeman teaches statistical techniques and/or methods for a list of all possible relationships for word combinations from a list of words and word groups having at least

two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating

the value of those for producing a list of words in a context of the word (sections 0072

and 0121-0123) and locating the word combination based on the comparison between

the first and the second value (section 0121). Freeman does not clearly teach the topic

of the word list.

However, Zimmermann teaches analysis and categorization of the words or word

combinations of the topics as well as the number of occurrences of the word pairs (col.

3, lines 45-58 and col. 8, lines 17-61; also see fig. 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Freeman with the

teachings of Zimmermann, wherein the subjects of the documents in the system

provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the

use of topics of word combination, in the same conventional manner as described by

Zimmerman (col. 8, lines 17-61). The motivation being to provide a efficient method for

statistical analysis of a collection of topics that are related to both data corpus and the

domain interest of the data analysis.

Claim 16 is essentially the same as claim 1 except that it is directed to a program

storage device rather than a method, and is rejected for the same reason as applied to

the claim 1 hereinabove.

Claim 17 is essentially the same as claim 2 except that it is directed to a program

storage device rather than a method, and is rejected for the same reason as applied to

the claim 2 hereinabove.

Claim 18 is essentially the same as claim 3 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 19 is essentially the same as claim 5 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 5 hereinabove.

Claim 20 is essentially the same as claim 6 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 6 hereinabove.

Claim 21 is essentially the same as claim 7 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 7 hereinabove.

Claim 22 is essentially the same as claim 9 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 7 hereinabove.

Claim 23 is essentially the same as claim 10 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 10 hereinabove.

Claim 24 is essentially the same as claim 11 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 11 hereinabove.

Claim 26 is essentially the same as claim 13 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 13 hereinabove.

With respect to claim 29, Freeman teaches the result set identifying a plurality of stored data items (list of words of word combinations: sections 0060-0063 and these word combinations including at least two or more words: two words or pair elements: section 0048).

Freeman teaches statistical techniques and/or methods for a list of all possible relationships for word combinations from a list of words and word groups having at least two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating the value of those for producing a list of words in a context of the word (sections 0072 and 0121-0123) and locating the word combination based on the comparison between the first and the second value (section 0121). Freeman does not clearly teach identifying those topics associated with the stored data items identified in the result set, selecting for display a topic associated with the most identified stored data items, selecting for display another topic, said another topic associated with the most identified stored data items not associated with a previously identified display topic, wherein this step is repeated until all identified stored items in the result set have been accounted for and displaying the selected display topics.

However, Zimmermann teaches retrieval system containing a database that relates document word-pair patterns topics, using search query to search or retrieve or

extract a list of documents as a result set of topics based on the search query and

display the result to the requestor (see fig. 10, col. 4, lines 25-58, col. 6, lines 2-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Freeman with the

teachings of Zimmermann, wherein the subjects of the documents in the system

provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the

use of topics of word combination, in the same conventional manner as described by

Zimmerman (col. 8, lines 17-61). The motivation being to provide a efficient method for

statistical analysis of a collection of topics that are related to both data corpus and the

domain interest of the data analysis.

With respect to claims 30-35, Freeman teaches a method for displaying a list of

topics as discussed in claim 29.

Freeman teaches statistical techniques and/or methods for a list of all possible

relationships for word combinations from a list of words and word groups having at least

two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating

the value of those for producing a list of words in a context of the word (sections 0072

and 0121-0123) and locating the word combination based on the comparison between

the first and the second value (section 0121). Freeman does not clearly teach

identifying an initial user query, list of topics, result set, a list of topics associated with

identified stored data items.

However, Zimmermann teaches retrieval system containing a database that

relates document word-pair patterns topics, using search query to search or retrieve or

extract a list of documents as a result set of topics based on the search query and display the result to the requestor (see fig. 10, col. 4, lines 25-58, col. 6, lines 2-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Freeman with the teachings of Zimmermann, wherein the subjects of the documents in the system provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the use of topics of word combination, in the same conventional manner as described by Zimmerman (col. 8, lines 17-61). The motivation being to provide a efficient method for statistical analysis of a collection of topics that are related to both data corpus and the domain interest of the data analysis.

With respect to claims 36-37, Freeman teaches a method for displaying a list of topics as discussed in claim 29.

Freeman teaches statistical techniques and/or methods for a list of all possible relationships for word combinations from a list of words and word groups having at least two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating the value of those for producing a list of words in a context of the word (sections 0072 and 0121-0123) and locating the word combination based on the comparison between the first and the second value (section 0121). Freeman does not clearly teach identifying an initial user query, list of topics, result set, displaying a selected number of stored data item identifiers and displaying a hyperlink.

However, Zimmermann teaches displaying a list of topics in the table for each documents to the requestor (col. 10, lines 65-67 and col. 11, lines 1-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Freeman with the

teachings of Zimmermann, wherein the subjects of the documents in the system

provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the

use of topics of word combination, in the same conventional manner as described by

Zimmerman (col. 8, lines 17-61). The motivation being to provide a efficient method for

statistical analysis of a collection of topics that are related to both data corpus and the

domain interest of the data analysis.

With respect to claim 38, Freeman teaches a method for displaying a list of topics

as discussed in claim 29.

Freeman teaches statistical techniques and/or methods for a list of all possible

relationships for word combinations from a list of words and word groups having at least

two or more words (pair of words) (sections 0019, 0048 and 0060-0072) and calculating

the value of those for producing a list of words in a context of the word (sections 0072

and 0121-0123) and locating the word combination based on the comparison between

the first and the second value (section 0121). Freeman does not clearly teach

generating a list of unique individual words from the topics not yet selected for display,

selecting for display a unique word from the list of unique individual words associated

with the most identified stored data items; and selecting for display another unique word

from the list of unique individual words, said another unique word associated with the

most identified stored data items not associated with a previously identified display topic

and unique word, wherein this step is repeated until all identified stored items in the result set have been accounted for.

However, Zimmermann teaches retrieval system containing a database that relates document word-pair patterns topics, using search query to search or retrieve or extract a list of documents as a result set of topics based on the search query and display the result to the requestor (see fig. 10, col. 4, lines 25-58, col. 6, lines 2-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Freeman with the teachings of Zimmermann, wherein the subjects of the documents in the system provided therein (Freeman's figs 2 and sections 0060 and 0072), would incorporate the use of topics of word combination, in the same conventional manner as described by Zimmerman (col. 8, lines 17-61). The motivation being to provide a efficient method for statistical analysis of a collection of topics that are related to both data corpus and the domain interest of the data analysis.

Claim 39 is essentially the same as claim 29 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 29 hereinabove.

Claim 40 is essentially the same as claim 30 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 30 hereinabove.

Claim 41 is essentially the same as claim 31 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 31 hereinabove.

Claim 42 is essentially the same as claim 32 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 32 hereinabove.

Claim 43 is essentially the same as claim 33 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 33 hereinabove.

Claim 44 is essentially the same as claim 34 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 34 hereinabove.

Claim 45 is essentially the same as claim 35 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 35 hereinabove.

Claim 46 is essentially the same as claim 36 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 36 hereinabove.

Claim 47 is essentially the same as claim 37 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 37 hereinabove.

Claim 48 is essentially the same as claim 38 except that it is directed to a program storage device rather than a method, and is rejected for the same reason as applied to the claim 38 hereinabove.

Contact Information

8.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or
via E-Mail: ANH.LY@USPTO.GOV **or fax to (571) 273-4039**. The examiner can
normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, John Breene, can be reached on (571) 272-4107 or Primary Examiner Jean
Corrielus (571) 272-4032.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for published
applications may be obtained from either Private PAIR or Public PAIR. Status
information for unpublished applications is available through Private PAIR only. For
more information about the PAIR system, see **http://pair-direct.uspto.gov**. Should you
have questions on access to the Private PAIR system, contact the Electronic Business
Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to: Commissioner of Patents and
Trademarks, Washington, D.C. 20231, or faxed to: Central Fax Center (703) 872-9306

ANH LY/
MAR. 14th, 2005

JEAN M. CORRIELUS
PRIMARY EXAMINER